GERMANIC AND THE *RUKI* DIALECTS[1]

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Abstract

A new relationship is proposed between Germanic, which shows lowering and retraction of vowels before /r/, /w/, /x/, and the *ruki* dialects of Indo-European, Baltic, Slavic and Indo-Iranian, which have retraction of /s/ following /r/, /u/, /k/, /i/. There are two aspects to the relationship: the Germanic segments correspond directly to three of the four *ruki* segments and the effects on vowels in Germanic and on /s/ in the *ruki* dialects may be attributed to the spread of a common phonological feature, Retracted Tongue-root, [RTR].

1 The Germanic material

There is a collection of sound changes in early Germanic dialects which may be understood as a lowering and/or a retracting effect on preceding vowels of, originally, the consonants /r/, /w/, /x/. Gothic has removed /w/ from the set, while Old English has added /l/. These changes will be documented, for the most part, by reference to Voyles' (1992) handy compendium of rules for early Germanic.

1.1 Old English breaking

Voyles (**6.1.17 Breaking**) gives examples which can be interpreted as the retraction of the second part of front vowels before /r/, /w/, /x/, /l/:

1.1.1	/r/	*erθæ	>	*eorþe*	'earth'
1.1.2	/w/	*knewes	>	*cneowes*	'knee' gen. sing.
1.1.3	/x/	*mæxt	>	*meaht*	'power'
1.1.4	/l/	*æll	>	*eall*	'all'.

[1] These ideas have been presented to a meeting of the Research on Languages and Linguistics Seminar at the University of Sussex and as a poster at the 12th Manchester Phonology Meeting, both in May 2004.

An analogue of the effect before /r/ may be found in modern English in the "centering diphthongs" of Wells' (1982: 153f) NEAR and SQUARE sets in some accents and the pronunciation of the FLEECE vowel before /l/ can show the same NEAR diphthong eg in *field* in some London accents (ibid.: 315). (Lowering and retraction of vowels adjacent to /r/ is also a characteristic of modern Danish.)

1.2 Old High German monophthongization

/ai/ > /ɛ:/ before /r/, /w/ and Germanic /x/.

The /a/ is raised to /ɛ/ by i-umlaut before /i/ and the /i/ is lowered to /ɛ/ before /r/, /w/ and Germanic /x/.

Examples from Voyles: **9.1.3a The Changes in [ai]:**

1.2.1	/r/	*saira	>	*sēr*	'pain'
1.2.2	/w/	*saiwaz	>	*sēu*	'sea'
1.2.3	/x/	*aixtiz	>	*ēht*	'wealth';

but there is no lowering before OHG *h* from Germanic /k/:

1.2.4	/k/	*aik	>	*eih*	'oak'

1.2.5 Voyles **9.1.3b The Changes in [au]**

The OHG monophthongization of /au/ to /ɔ:/ does not form part of the evidence for the claims of this paper because the conditions for its operation are different from the conditions for the changes in [ai] above, but the form of its conditions does in fact lend support to those claims.

The monophthongization of /au/ took place before coronal consonants (t,θ,d,s,z,l,r,n)

/s/	*kaus	>	kōs	'chose'

and before Germanic /x/

/x/	*taux	>	zōh	'pulled',

but again not before OHG h from Germanic /k/

/k/ *auk > ouh 'also'.

This is like the monophthongization of /ai/ in happening before /r/ and Germanic /x/ but unlike it in also happening before other coronal consonants and in not happening before /w/

/w/ *dauw- > tou 'dew' (Vennemann (1972: 864)).

The rule could alternatively be stated as: *not before labials and velars*; if only the reflex of Germanic /x/ were not velar. Now Vennemann, in his (1972: 875) treatment of these same Germanic data, concludes that the OHG reflex of Germanic /x/ was a retracted uvular fricative [χ]. The claims of this paper have the corollary that Germanic /x/itself was uvular which makes its reflex in OHG as a uvular unsurprising. That this simplifies the conditions for the changes in [au], may be seen as indirect support for these claims.

OHG developed a velar fricative which did not allow the monophthongization of [au], but at some time after the monophthongization the uvular fricative from Germanic /x/ merged with the new velar. In Dutch, which did not develop such a velar fricative, the reflex of Germanic /x/ remains uvular.

1.3 Gothic lowering

Voyles: **4.2.4 First Umlaut, 3.1.10 East Germanic First Umlaut**
gives lowered alternants of /i/, /u/ before /r/, /x/, /x^{w}/:

1.3.1	/r/	*waír*	'man'	*waúrms*	'worm'
1.3.2	/x/	*maíhstus*	'dunghill'	*daúhtar*	'daughter'
1.3.3	/x^{w}/	*laíh^{w}um*	'we lent'		

where *aí, aú* are taken to represent short, mid monophthongs.

1.4 Old Icelandic lowering and monophthongization

The situation in OI is not so clear but
Voyles: **5.1.1 The [ai] Changes** has /ai/ > /a:/ before /r/ and /x/:

1.4.1 /r/ *air 'early' > *ár*
1.4.2 /x/ *faihaz 'shining' > *fár.*

Gordon (p. 275) **Influence of *w*** has additionally *ai* > *æ* before *w*:

1.4.3 /w/ *saiwR > *sæuR > *sjór* 'sea'

with the *æ* preserved in the genitive *sævar.* This seems similar to the OHG monophthongisation and maybe the difference from the Voyles rule for /r/, /x/ is that it applied after i-umlaut.

Voyles **5.1.12 The [au] Change** has monophthongisation before *h*:

1.4.4 /x/ *hauhaz > *hór* 'high'

and other examples before *h* from word-final devoicing.

Gordon (p. 275) **Influence of *h*** has lowering of *i, u* before *h* in:

1.4.5 /x/ *rétta* 'correct', Danish *rette* cf. OE *rihtan*
1.4.6 /x/ *sótt* 'sickness' cf. OE *suht.*

All these may be taken as lowering of /i/ before /r/, /w/ and lowering of /i/, /u/ before /x/.

1.5 The [RTR] proposal

These early Germanic data have been thoroughly dug over by Vennemann (1972). He uses (:873) a variant of [+low] with the force of 'relatively low' as the active principle. A modern feature which will do this job without the need for *ad hoc* qualification, Retracted Tongue-root, [RTR], or Pharyngeal Constriction, is proposed here. It can characterize consonants, as in *emphasis* in Arabic (see below in 3), and have a relative lowering effect on vowels and a retracting effect, particularly on front vowels. This also seems more apposite to the OE data in 1.1, where the spelling is more suggestive of retraction than lowering alone.

Germanic /r/, /w/, /x/ were *emphatic* in Arabic terms, having the feature [RTR] which could spread and affect preceding vowels in various ways in the dialects.

2 THE *RUKI* DIALECTS

2.1 Baltic

Lithuanian has preserved distinct reflexes of /s/ > /š/ after /r/, /u/,/i/:

2.1.1	/r/	*viršùs*	*'top'*
2.1.2	/u/	*aũšti*	*'dawn'*
2.1.3	/i/	*áiškus*	*'clear'*

where the retracted allophone of /s/ has merged with the /š/ from /ǩ/ by *satem* palatalization. Andersen (1968) argues cogently that the many cases where Lithuanian has /s/ after /i/, /u/, which have led many to regard Baltic as a marginal member of the *ruki* group, may be seen as morphological regularizations. It is examples of the change after /k/ that are hard to find: Andersen cites

2.1.4	?/k/	*áugštas*	'high'

which is possible if the <g> represents a /k/ derived from ?/g/ before the operation of the *ruki* rule, though it is also possible that this is an example of /š/ after /u/.

2.2 Slavic

In contrast to Lithuanian the reflex of /ǩ/ by *satem* palatalization has merged with /s/ and does not provide a phoneme to attract retracted allophones of original /s/. These retracted allophones of /s/ became a distinct phoneme /x/:

		Russian	
2.2.1	/r/	*verx*	'top'
2.2.2	/u/	*sux*	'dry'
2.2.3	/i/	*tix*	'quiet'.

Andersen has some discussion (1968: 176f) of the origins of this phoneme.

Examples of the change after /k/ are again hard to come by. He cites the Old Church Slavonic sigmatic aorist (: 179):

2.2.4	/k/	*rěxŭ*	'I said'	from	*rēk-s-om*

2.3 Iranian

The retracted /s/ merged with /š/ which had arisen from /ƙ/ in certain combinations, see Mayhofer (1989: 12). Examples from Burrow (1965: 79) and Mayrhofer (1989: 9):

2.3.1	/r/	O. Pers.	*adaršnauš*	'he dared'
2.3.2	/u/	Av.	*huška-*	'dry'
2.3.3	/k/	Av.	*vaxš*	'voice'
2.3.4	/i/	Av.	*viša*	'poison'

2.4 Indic

Sanskrit preserved the retracted allophone of /s/ by assimilating it to the retroflex phoneme, /ṣ/, presumably acquired from Dravidian speakers and loanwords. Examples from Burrow (1965: 79):

2.4.1	/r/	*varṣman-*	'summit'
2.4.2	/u/	*mū́ṣ-*	'mouse'
2.4.3	/k/	*kṣudrá-*	'small'
2.4.4	/i/	*víṣa*	'poison'

2.5 [RTR] again

The same feature suggested to account for vowel lowering and retraction in early Germanic, Retracted Tongue-root [RTR], can also be used to explain /s/ retraction in the *ruki* dialects. It is known to spread in vowel and consonant systems. Here it spreads from both vowels and consonants of the /r/, /u/, /k/, /i/ phonemes to a following /s/.

It is proposed, therefore, that /u/, /i/ were lowered/retracted, perhaps to [ö], [ë], and /k/ retracted to the uvular [q] in these dialects of Indo-European.

3 Semitic parallels

An analogue of these effects of the feature [RTR] on consonants in the *ruki* group and on vowels in Germanic may be found in Semitic. Watson (2002: 10.3) describes the spread of pharyngeal constriction or 'emphasis' in eg Cairene Arabic:

3.1 *ṭifl* 'child' [t̪ɨf̪l]

from the initial consonant to both vowel and consonants. She also notes (10.4.4) lowered vowel glides, resembling OE breaking, adjacent to pharyngeals in both Cairene Arabic:

3.2 /be:ʕ/ [be:ᵃʕ] 'sale'

and in Tiberian Hebrew

3.3 /ru:ħ/ [ruaħ] 'spirit'

In a more technical study, Watson (1999: 290) attributes the spread of emphasis in Arabic dialects, from the Emphatics eg T, D, S, to consonants and vowels, to the feature [RTR].

Rose (1996: 81) concurs and adds the uvulars: q, χ, ʁ, ʀ and the pharyngeals: ħ, ʕ to the set of consonants characterized by [RTR] and causing retraction of vowels by the spread of [RTR].

4 The Sound of Northern Indo-European

There is a direct correspondence between the RTR segments proposed for Germanic and the *ruki* dialects:

Germanic	*ruki*
r	**r**
w	**u̪**
x	**k**

with the exception of *ruki* vocalic **u,** and **i.** This is a new isogloss connecting Germanic with the *ruki* dialect group of IE.

The association of Germanic with the *ruki* group is shown in bold in Figure 1 as Northern Indo-European (nIE). Though the feature [RTR] may often characterize /r/, its gratuitous addition to /i/, /u/ (making them lower) and to /k/ (retracting it to [q]) in the *ruki* group is seen as an arbitrary dialect marker. It is worth emphasising Vennemann's (1974: 96) point that neither **r u k i** nor **r w x** are natural classes. But in this dialect area they share a common feature, [RTR].

The posited lower realization of /u/ may be a reason, by compressing the vowel space below it, for the widespread merger /o/ and /a/ in *ruki* dialects.

Germanic has evidence for [RTR] in /r/, /w/ (consonantal /u/) and /x/ (the reflex of IE /k/) but not in /i/ or vocalic /u/. That it also has merger of /o/ and /a/ may suggest that the earliest Germanic shared more fully in the *ruki* dialect marking. If that extended to /i/, making it lower, that may have contributed to the early merger of /i/ with /e/ in Germanic.

	centum	*satem, ruki*		
nIE	**Germanic**	**Baltic / Slavic**	**Indo-Iranian**	*ruki*
	Celtic	Albanian	Armenian	*satem*
sIE	Italic		Greek	*centum*
	wIE		*eIE*	

Figure 1. Core Indo-European dialects (ie. excluding Anatolian and Tocharian)

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